PATENT
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	)	
	)	
David W. Cannell *et al.*	)	Group Art Unit: 1615
	)	
Application No.: 09/614,118	)	Examiner: H. Sheikh
	)	
Filed: July 11, 2000	)	
	)	Confirmation No. 1975
For: THE USE OF C3-C5 MONOSACCHARIDES TO PROTECT KERATINOUS FIBERS	)	

MAIL STOP AF
Commissioner for Patents
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Sir:

PRE-APPEAL BRIEF REQUEST FOR REVIEW

In reply to the Final Office Action mailed April 1, 2005, and pursuant to the July 12, 2005 OG Notice regarding the Pre-Appeal Brief Conference Pilot Program, Applicants respectfully request panel review of the final rejection under 35 U.S.C. § 103(a) discussed in the remarks below. No amendments are being filed with this Request. A Notice of Appeal and a petition for a one month extension of time accompanies this Request, which is due August 1, 2005, and is timely filed.

REMARKS

I. Status of the Claims

Claims 1-56 remain pending in this application. No claims have been amended.

II. Rejections under 35 U.S.C. § 103

In the Final Office Action, the Office continues to reject claims 30-56 under 35 U.S.C. § 103 as being unpatentable over Wisotzki et al. (U.S. Patent No. 4,900,545) ("Wisotzki"), or Koga et al. (U.S. Patent No. 5,660,838) ("Koga"), or Syed et al. (U.S. Patent No. 5,641,477) ("Syed"). Final Office Action, page 2. The Office indicates that Applicants' arguments have been fully considered, but are not persuasive. *Id.* at 8. The Office continues to assert that the references relied upon teach that sugars can be applied to hair to reduce damage to the hair, and that Applicants "have not shown any unexpected results that accrue from the use of C_3-C_5 sugars." *Id.* at 9. The Office acknowledges that the references relied upon do not teach heating the keratinous fiber to at least 45°C, but characterizes the teachings of *Wisotzki* of a hair rinse at 25°C or 30°C as only "slightly lower" than heating a keratinous fiber to at least 45°C as claimed. *Id.* According to the Office, the "[b]urden is shifted to Applicant to demonstrate some unexpected results or criticality in the claimed amount of 'at least 45°C' since the prior art teaches obtaining effective results using temperatures presented in the art." *Id.* at 9-10. Thus the position of the Office is that because the references teach sugars in general and a low level of heating, it would have been obvious to select the particular C3-C5 subset of sugars recited in the method claims, and it would have been obvious to

include a heating step that is at least 10°C higher than any mention of heating described in the references relied upon.

The Office's position disregards the requirements for establishing a *prima facie* case of obviousness and incorrectly requires Applicants to provide evidence of secondary considerations which are only relevant if the Office establishes a *prima facie* case. In order to establish a *prima facie* case of obviousness, the Office must demonstrate that there is some suggestion or motivation, either in the cited references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify a reference. *See* M.P.E.P. § 2143. Moreover, "all claim limitations must be taught or suggested." M.P.E.P. § 2143.03. Finally, "[I]f the examiner does not produce a prima facie case, the applicant is under no obligation to submit evidence of nonobviousness." M.P.E.P. § 2143.02.

Here the Office has failed to establish a *prima facie* case of obviousness. First, it has provided no reason why the ordinary artisan would have been motivated to select the C3-C5 subset of sugars, or any of the particular sugars, recited in the claimed methods. *Syed* does not provide any motivation to select a C3 to C5 sugar from among the sugars mentioned because *Syed* states at column 3, lines 7-8 that sucrose or sorbitol, each of which are C6 sugars, is preferred and it is C6 sugars which are used in the examples. *Wisotzki*, like *Syed*, actually uses a C6 sugar (glucose) and mentions in column 2 at lines 36-49 that glucose is preferably used in the composition for repairing split ends.

As described in the instant specification, however, glucose does not provide the protective effect seen with C3 to C5 monosaccharides and disaccharides. Accordingly,

Syed and *Wisotzki*, by preferring a C6 sugar, do not provide the requisite motivation to select at least one sugar chosen from C3 to C5 monosaccharides and derivatives thereof, as required by the claims. In addition, Applicants note that the dependent claims recite specific C3-C5 sugars, specific forms of those sugars, or combinations of sugars. Besides providing no motivated to select the subgenus of C3-C5 sugars, *Syed* and *Wisotzki* do not provide any motivation to select the particular C3-C5 sugars recited in the dependent claims.

Second, none of the references cited teach or suggest that the keratinous fibers should be heated "to at least 45°C." *Syed* mentions only a "tepid" water rinse following application of the lanthionizing composition and evaluating the tensile strength while the hair is immersed in water at a temperature of 21°C. Column 5, lines 7-47. *Wisotzki* similarly teaches only a hair rinse at 25°C or 30°C after application of a composition for repairing split ends. Column 5, lines 44-68. Although the Office has asserted that a hair rinse at 25°C or 30°C is only "slightly lower" than heating a keratinous fiber to at least 45°C, this is a temperature difference of at least 150%!

The Office points to *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955), for the proposition that "it is not inventive to discover the optimum or workable ranges by routine experimentation." Final Office Action, page 9. However, "[a] particular parameter must first be recognized as a result-effective variable, i.e., a variable which achieves a recognized result, before the determination of the optimum or workable ranges of said variable might be characterized as routine experimentation." M.P.E.P. § 2144.05.II.B. (citing *In re Antonie*, 559 F.2d 618, 195 USPQ 6 (CCPA

1977)). The Office has not pointed to any basis in either *Syed* or *Wisotzki* that shows that temperature was recognized as a results-effective variable.

Finally, the only time *Koga* discusses a temperature is with respect to the humidity chamber experiments at column 4-7, which in some cases expose the composition to 35°C. Applicants note once again that *Koga* does not teach applying the composition to a keratinous fiber prior to or during the heating. Instead, the composition is heated only in the humidity chamber experiments, which do not involve application of the composition to a keratinous fiber. *Koga*, therefore, also does not teach or suggest the claimed method step of heating a keratinous fiber to at least 45°C.

Applicants maintain for the reasons of record and as discussed *supra* that the teachings of *Syed*, *Witsozki*, and *Koga* do not render any of the claims unpatentable. Accordingly, Applicants respectfully request the Office withdraw those rejections.

III. Conclusion

In view of the foregoing remarks, Applicants respectfully request reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our Deposit Account No. 06-0916.

Respectfully submitted,

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Dated: July 27, 2005

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